

ABSTRACT

A storage server for efficiently retrieving data from a plurality of disks in response to user access requests. The server comprises a plurality of processors coupled to 5 disjoint subsets of disks, and a custom non-blocking packet switch for routing data from the processors to users. By tightly coupling the processors to disks and employing an application-specific switch, congestion and disk scheduling bottlenecks are minimized. By making 10 efficient use of bandwidth, the architecture is also capable of receiving real-time data streams from a remote source and distributing these data streams to requesting users. The architecture is particularly well suited to video-on-demand systems in which a video server stores a 15 library of movies and users submit requests to view particular movies.

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